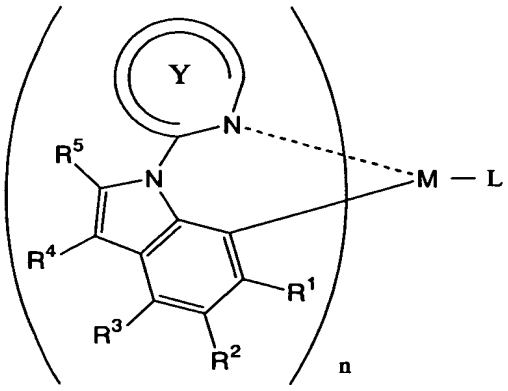
ABSTRACT OF THE DISCLOSURE

Organometallic complexes represented by chemical formula 1 are synthesized. In chemical formula 1, R^1 to R^5, are individually a hydrogen atom, a halogen atom, a lower alkyl group, an alkoxy group, an acyl group, a nitro group, a cyano group, an amino group, a dialkylamino group, a diarylamino group, a vinyl group, an aryl group, or a heterocyclic group. Each pair of R^1 and R^2, R^2 and R^3, and R^4 and R^5 may be bonded each other to form aromatic rings. Y is a heterocyclic group containing nitrogen atoms as hetero atoms. M is atoms of group 9 in the periodic table or atoms of group 10 in the periodic table. When the M is atoms of group 9 in the periodic table, n=2. When the M is atoms of group 10 in the periodic table, n=1. L is a monoanionic bidentate chelate ligand having a beta diketone structure, a monoanionic bidentate chelate ligand having a carboxyl group, or a monoanionic bidentate chelate ligand having a phenol hydroxyl group.



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